Amendments to the Claims:

Please amend the claims as follows. This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1-8. (Cancelled)

9. (New) Catalyst for water electrolysis, comprising iridium oxide and an inorganic oxide, wherein the inorganic oxide has a BET surface area in the range of 50 to 400 m^2/g and is present in a quantity of less than 20 wt.% based on the total weight of the catalyst.

10. (New) Catalyst according to claim 9, further comprising ruthenium oxide in an amount resulting in an Ir / Ru-atomic ratio in the range of 4 / 1 to 1 / 4.

11. (New) Catalyst according to claim 9, wherein the inorganic oxide is selected from the group of titania (TiO_2), silica (SiO_2), alumina (Al_2O_3), zirconia (ZrO_2), tin dioxide (SnO_2), ceria, niobium pentoxide (Nb_2O_5) tantalum pentoxide (Ta_2O_5) and/or combinations thereof.

12. (New) Catalyst according to claim 10, wherein the inorganic oxide is selected from the group of titania (TiO_2), silica (SiO_2), alumina (Al_2O_3), zirconia (ZrO_2), tin dioxide (SnO_2), ceria, niobium pentoxide (Nb_2O_5) tantalum pentoxide (Ta_2O_5) and/or combinations thereof.

13. (New) Catalyst according to claim 9, wherein the water solubility of the inorganic oxide (as determined according to EN ISO 787, part 8) is lower than 0.15 g/l.

14. (New) Catalyst according to claim 9, wherein the water solubility of the inorganic oxide (as determined according to EN ISO 787, part 8) is lower than 0.05 g/l at 20 °C.

15. (New) Catalyst according to claim 10, wherein the water solubility of the inorganic oxide (as determined according to EN ISO 787, part 8) is lower than 0.15 g/l.

16. (New) Catalyst according to claim 11, wherein the water solubility of the inorganic oxide (as determined according to EN ISO 787, part 8) is lower than 0.15 g/l.

17. (New) Catalyst according to claim 9, wherein the iridium oxide comprises iridium(IV)-oxide, iridium(III)-oxide and/or mixtures thereof.

18. (New) Catalyst according to claim 10, wherein the iridium oxide comprises iridium(IV)-oxide, iridium(III)-oxide and/or mixtures thereof.

19. (New) Catalyst according to claim 11, wherein the iridium oxide comprises iridium(IV)-oxide, iridium(III)-oxide and/or mixtures thereof.

20. (New) Catalyst according to claim 12, wherein the iridium oxide comprises iridium(IV)-oxide, iridium(III)-oxide and/or mixtures thereof.

21. (New) Process for the manufacture of the catalyst according to claim 9 comprising the steps:

a) dissolving the iridium and optionally the ruthenium precursor compound in the presence of an inorganic oxide in an aqueous solution and

b) precipitating the iridium oxide (optionally in combination with the ruthenium oxide) by adjusting the pH of the mixture in the range of 6 to 10,

c) separating and drying the catalyst,

d) heat treating the catalyst at temperatures in the range of 300 to 800 °C.

22. (New) Process for the manufacture of the catalyst according to claim 10 comprising the steps:

a) dissolving the iridium and optionally the ruthenium precursor compound in the presence of an inorganic oxide in an aqueous solution and

b) precipitating the iridium oxide (optionally in combination with the ruthenium oxide) by adjusting the pH of the mixture in the range of 6 to 10,

c) separating and drying the catalyst,

d) heat treating the catalyst at temperatures in the range of 300 to 800 °C.

23. (New) Process for the manufacture of the catalyst according to claim 11 comprising the steps:

a) dissolving the iridium and optionally the ruthenium precursor compound in the presence of an inorganic oxide in an aqueous solution and

b) precipitating the iridium oxide (optionally in combination with the ruthenium oxide) by adjusting the pH of the mixture in the range of 6 to 10,

c) separating and drying the catalyst,

d) heat treating the catalyst at temperatures in the range of 300 to 800 °C.

24. (New) Process for the manufacture of the catalyst according to claim 12 comprising the steps:

a) dissolving the iridium and optionally the ruthenium precursor compound in the presence of an inorganic oxide in an aqueous solution and

b) precipitating the iridium oxide (optionally in combination with the ruthenium oxide) by adjusting the pH of the mixture in the range of 6 to 10,

c) separating and drying the catalyst,

d) heat treating the catalyst at temperatures in the range of 300 to 800 °C.

25. (New) Use of the catalyst according to claim 9 as anode catalysts in electrodes, catalyst-coated membranes (CCMs) and membrane-electrode-assemblies (MEAs) for PEM water electrolysers.

26. (New) Use of the catalyst according to claim 9 in regenerative fuel cells (RFC), sensors, electrolysers and other electrochemical devices.

27. (New) An article of manufacture comprising the catalyst according to claim 9 as an anode catalyst in an electrode.

28. (New) A membrane (CCMs) coated with the catalyst according to claim 9.

29. (New) A membrane-electrode assembly (MEAs) for REM water electrolysis containing the catalyst according to claim 9.

30. (New) An article of manufacture selected from the group consisting of a regenerative fuel cell (RFC), a sensor and an electrolyser containing the catalyst according to claim 9.